REMARKS

Overview

Claims 1-10 and 12-19 are pending in the present application. Claims 1, 9, 12, 14 and 16 have been amended. Claim 17 has been cancelled. The present response is an earnest effort to place all claims in proper form for immediate allowance. Reconsideration and passage to issuance is therefore respectfully requested.

Issues Under 35 U.S.C. § 112

Claim 1 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, claim 1 has been rejected for insufficient antecedent basis for the limitation of "at the spin speed". Claim 1 has been amended to delete this term, such that the § 112 rejection is moot.

Issues Under 35 U.S.C. § 103

Claims 1-10 and 12-19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,241,782 to Vande Haar in view of U.S. Patent Application Publication No. 2001/0054204 to Ciancimino.

The present response amends independent claims 1, 9, 12, 14 and 16 to further distinguish the prior art references from the claimed invention. There are significant differences between the present invention and the cited prior art references. It is respectfully submitted that the amendments to claims 1, 9, 12, 14 and 16 clarify these differences by making these differences explicit in the language of the claims.

The method claims 1, 9 and 12 have been amended to include the limitations that both the rotational torque and the rotational speed of the basket be sensed. Additionally, these claims have been amended to include the limitation "determining changes in torque and decreased rotational speed of the washing basket caused by fabrics frictionally engaging the flexible boot during rotation of the washing machine basket at a spin speed." The combination of Vande Haar and Ciancimino does not disclose the combination of these limitations.

Neither Vande Haar nor Ciancimino discloses the sensing of washing basket rotational speed and torque. Both references disclose a set spin speed and the altering of this speed, but not the active measuring of the spin speed of the washing machine basket while in use. Instead, it appears that these are fixed spin speeds defined for specific situations that the controller sets.

Additionally, the manner in which Ciancimino measures torque would not detect or affect changes due to a constant increase in torque caused by a fabric frictionally engaging the flexible boot during rotation of the washing machine basket. Ciancimino measures the motor torque oscillations (see paragraph 7) caused by an unbalanced load in the washer basket. Ciancimino eliminates the constant level torque increase from its determination of an unbalanced load and instead looks to fluctuations in the torque so that the system does not stop the rotation of the washer basket caused by the increased torque requirement during acceleration to a higher spin speed. The variation in torque is caused by the lateral movement of the washer basket perpendicular to the axis of rotation.

The torque caused by acceleration can vary from load to load in the washing machine basket because of the mass and weight of the fabric varying between loads. Because Ciancimino does not actively measure the spin speed of the washing machine as the torque, Ciancimino is forced to look to the fluctuation in a torque value while spinning to detect an out of balance state.

Ciancimino does not disclose a system that responds to the constant increase in torque value for a specific spin speed and thus does not disclose the use of a speed sensor and a torque sensor to determine when a fabric has become engaged with a flexible boot seal.

As Vande Haar and Ciancimino do not disclose each of the limitations of amended claims 1, 9, and 12, Applicant respectfully requests that the Examiner withdraw these rejections. As claims 2-8, 10, 13 and 19 depend from these allowable base claims, Applicant requests that these rejections be withdrawn as well.

Independent claim 14 has been amended to include the limitations of having a "sensor for sensing rotational speed of the washing basket" and a "sensor for sensing torque of the rotating washing basket." For the reasons outlined above regarding claims 1, 9 and 12, Applicant believes that amended claim 14 is not disclosed by the combination of Vande Haar and Ciancimino. Applicant respectfully requests the Examiner withdraw this rejection. Applicant requests that these rejections to dependent claim 15 be withdrawn as well.

Independent claim 16 has been amended by including the limitation that the sensing for laundry engaging a boot seal adjacent an access opening in the machine by "sensing motor speed and torque." As the combination of Vande Haar and Ciancimino does not disclose measuring both speed and torque, Applicant earnestly believes that claim 16 is in proper form for allowance. As claim 18 depends from claim 16, Applicant asks that the Examiner withdraw this rejection as well.

Applicant believes that the claims as currently amended are in proper form for allowance.

Conclusion

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

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